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COMMENTARY

"Post Modern Medicine" would be "calculable and energy-based medicine": A hypothesis paper

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Abstract The approach of current modern medicine towards human body system is solely molecular and cellular. Despite the great efforts, current medicine has not been successful enough, and spectrum of disorders has remained untreated. It emphasizes on the essential need for more careful approach to the body system. Prior to the molecules and cells human body system has been composed of countless of atomic and subatomic particles, considering laws of quantum physics and the principles of chemistry the energy levels of energy photons of these particles play the most crucial role in designing human body characteristics and conformations.In this hypothesis paper, we outline the novel approach towards human body system and concluded that exposing a form of energy to the energy photons of the subatomic particles in one of the molecules of oxygen bound to phosphor in phosphate group would be beneficial therapeutic method regarding all types of cancers, refuting concerns of variety of gene mutations and signaling cascades engaged with engendering and progression of various types of cancers.

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Introduction

Focus of current modern medicine is laid on the concept that human body system is composed of multitude of cells and molecules, a core problem in this molecular and cellular approach is lack of success in curing spectrum of diseases and disorders such as cancers, indicating the imperfection of molecular and cellular approach towards human body system. In this hypothesis paper, we outline the novel approach towards body system known as "Post Modern Medicine", and foresee the future of this new approach.

The idea behind this hypothesis is the fact that human body system is composed of countless of atomic and subatomic particles, considering laws of quantum physics and principles of chemistry, the energy levels of atomic and subatomic photons of energy deemed to be crucial in forming the final characteristics of atoms, molecules and ions conformation and stability. It means that the subatomic particles play the most pivotal role in stabilizing body status.

Ions are atoms or group of atoms with a positive or negative charge. Forming cations and anions is in consequence of losing or gaining the electron(s), which basically is ensued from alteration in energy levels of energy photons of atomic and subatomic particles. These are indispensible significant provisions for multitude of vital mechanisms such as oxidation and reduction, and spectrum of physiologic signaling pathways, chief among them is phosphorylation which has been known as undergirding most physiologic process including cancers, endocrine action, immune response, behavior and neurologic mechanisms and cardiovascular system [9,4].

Considering the indispensible role of energy alteration in the subatomic energy photons in human body system, our enthusiasm fostered for ushering in a new therapeutic strategies regarding spectrum of diseases and disorders. Briefly speaking in this new strategy, energy would be exposed toward the specific atom or subatomic particles to alter the energy level of photons aimed at hampering unnecessary signaling pathways or launching the diminished necessary signaling pathways, knocking down the mutated genes and proteins with aberrant disease promoting structures. While we send a form of energy as a therapeutic agent and the therapeutic target is photons of energy, then there is no risk of chemical interactions while chemical interactions have been remained a challenge in current modern medicine and pharmacology. Atoms are less diverse beyond compared with molecules and cells, thereby for targeting the atomic particles, less therapeutic modalities are needed to be developed. This means less cost and less time-consuming scientific progression.

Cancer: As an example for "energy-based medicine"

Herein, we describe the outline of therapeutic strategies in "energy-based medicine" regarding the cancer, aimed to get a brief overview of this new field of medical sciences.

Cancer is the general name for group of more than 100 different diseases. Evidences indicted that cancer is caused by sequential alteration in several oncogenes, tumor-suppressor genes, or microRNA genes, subsequently leads to aberrant signaling pathways and changes in the structure of encoded protein [2]. Several therapeutic methods have been and being developed regarding cancer therapy based on current cellular and molecular approach to body system [3,5–8,10], while many types of cancers have not been successfully treated yet.

Herein we briefly review the nucleotides and genome structure. In RNA (ribonucleic acid) and DNA (deoxy ribonucleic acid) structure; nucleotides chemically bind to each other, this chemical bind has been known as polyanion backbone, composed of a repeating phosphodiester bonds, which are targets of degrading nucleases. The phosphate backbone plays a pivotal role in structural integrity of DNA and RNA ([1], www.nature.com/scitable/definition/phosphate-backbone-273).

The idea behind the post-modern energy-based therapeutic modality is the pivotal role of energy and subsequent electrical charge of atoms and molecules in regulating body system. Thereby we contend that targeting energy to genome backbone, and subsequent energy elevation of atomic and subatomic particles would induce gene knockdown.

The promising concept is that, while we targeting the energy photons of the genome backbone aimed at taking apart the sequences, definitely the sequence diversity would not be of importance anymore. We predict that in genome backbone, one of the oxygenes in the phosphate group would be a suitable energy therapeutic target aimed at knocking down the DNA integrity in the spectrum of mutated cells. Considering that genome backbone is similar in all nucleotide sequences, thereby one therapeutic modality would be efficacious regarding different types of cancers caused by mutation in various oncogenes. Thereby developing this new modality would be more beneficial with less cost compared with current therapeutic modalities, since there is no need to develop different drugs and therapeutic methods or even vaccines for each cancer, a specific amount of energy could be exposed, aimed at knocking down the genome backbone in various types of cancer cells, because the atomic structure of the genome backbone is similar in all various nucleotide sequences, which means that the energy levels of all the subatomic particles in different genome sequences are stable. Thereby we highly recommend that attempts should be made to exert this potential therapeutic principle to circumvent mutation diversity regarding cancer cells. If mutation takes place in tumor-suppressor gene then ions of following aberrant signaling pathways could be targeted by energy aimed at hampering the unnecessary signaling pathway, and finally, if the mutation occurs in microRNA genes, it leads to overexpression of that microRNA targeted gene, thereby this gene or subsequent unnecessary signaling pathways could be targeted by therapeutic energy agents aimed at being knocked down.

Dissecting the pathophysiology of cancer, we postulated that cancer basically is caused by alteration in energy levels of atomic and subatomic photons of energy, which leads to structural changes in some types of molecules including nucleotides leading to mutation and then induced some molecules which engender robust unusual deleterious signaling pathway cascades, chief among them are (signal transducers

and activators of transcription) STAT3, (hypoxia inducible factor) HIF-1α, ROS (reactive oxygen species), and ERK (extracellular signal-regulated kinase). Phosphorylation is a chief chemical event to induce this molecules and subsequent signaling pathways.

Phosphorylation is the addition of a phosphate group to the organic molecules ensued from alteration in energy levels of subatomic particles. There are myriad of phosphorylation sites in any cell while in all of them the energy alteration is fixed, since they are all the same process named phosphorylation and from the energy point of view, it is not of importance in which site and in which cells it is taking place. In this novel therapeutic modality, we predict that subatomic particles of one of the oxygens of phosphate group could be a good therapeutic target candidate. Atoms are less diverse beyond compare, a very limited number of atoms are forming spectrum of various molecules and cell types thereby in energy-based medicine less therapeutic modalities are needed to be developed.

As we discussed, exposing a form of energy to energy photons of subatomic particles in one of the molecules of oxygen bound to phosphor, whether in DNA backbone or in phosphorylation mechanism, would be a beneficial therapeutic method regarding all types of cancers, refuting concerns of variety of gene mutations and signaling cascades engaged with engendering and progression of various types of cancers.

Conclusion

Putting together in a clear format, molecular and cellular approach towards human body system has not been successful enough, since still spectrum of disorders has been remained untreated. This emphasizes on the essential need for more careful approach. Science is an endless search for the truth and there is no finality in the science. Prior to the molecules and cells human body system has been composed of countless atomic and subatomic particles, and the energy levels of energy photons of these particles play the most crucial role in designing human body characteristics and conformations. This new approach would guide us towards more mysterious unknown interesting events in the body system. For instance, what exactly happens in the subatomic particles resulting in a specific nucleotide sequence, or how these energy levels are being altered, which leads to different types of mutations! This new medical approach has opened series of new doors towards the mysterious world of human body. Developing this modality needs a relentless enterprise to pave the clinical development and bypass the imperfection of current cellular and molecular medicine. Indeed in the beginning, the close cooperation with quantum mechanic physicists is needed, as progresses been developed some more fields in the medical sciences are needed aimed at major breakthroughs in the energy-based medicine arena. Students of medical sciences should have more information regarding atomic and subatomic particles of human body, thereby new fields such as "Atomic and Subatomic Genetics", "Atomic and Subatomic Biology", "Atomic and Subatomic Physiology" would be essential fields for greater gains and developments in medical sciences.

Overview box:

First question: What do we already know about the subject?

The pivotal role of subatomic particles in chemical and physiologic mechanism has been illustrated. And changing the energy levels of subatomic particles is now practicable in physics

Second question: What does your proposed theory add to current knowledge available and what benefits does it have?

It could be fruitful to develop less diverse therapeutic modalities (since atoms are less diverse than molecules), with less adverse side effects and with no pharmaceutical interventions

Third question: Among numerous available studies, what special further study is proposed for testing the idea?

For further studies in this regard several questions should be answered, the most important ones are: How much energy is needed for hampering a specific unnecessary signaling pathway or launch a specific diminished necessary signaling pathway. How therapeutic energy could be guided toward targeted atom.

Conflict of interest

The authors declare that they have no conflict of interest.

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References

[1] Benner SA, Hutter D. Phosphates, DNA, and the search for nonterrean life: a second generation model for genetic molecules. Bioorg Chem 2002;30:62–80.
[2] Croce CM. Oncogenes and cancer. N Engl J Med 2008;358(5):502–11.
[3] Deng Y, Wang CC, et al. Therapeutic potentials of gene silencing by RNA interference: principles, challenges, and new strategies. Genetics 2014;538(2):217–27.
[4] Hunter T. Signaling-2000 and beyond. Cell 2000;100:113–27.
[5] Jeong WJ, Cha PH, Choi KY. Strategies to overcome resistance to epidermal growth factor receptor monoclonal antibody therapy in metastatic colorectal cancer. World J Gastroenterol 2014;20(29):9862–71.
[6] Kim JH, Lee HJ, Song YS. Stem cell based gene therapy in prostate cancer. Biomed Res Int 2014:549136.
[7] Palucka K, Ueno H, Banchereau J. Recent developments in cancer vaccines. J Immunol 2011;186(3):1325–31.
[8] Shah R, Rossa K, Nathanson SD. Pathogenesis, prevention, diagnosis, and treatment of breast. World J Clin Oncol 2014;5(3):283–98.
[9] Tarrant MK, Cole PA. The chemical biology of protein phosphorylation. Annu Rev Biochem 2009;78:797–825.
[10] Tran E, Rosenberg SA. T-cell therapy against cancer mutations. Oncotarget 2014;5(13):4579–80.